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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,446	10/21/2003	Jie Liang	TI-36057 (1962-05600)	3703

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EXAMINER	
TU, JULIA P	
ART UNIT	PAPER NUMBER
2611	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/690,446	LIANG, JIE	
	Examiner	Art Unit	
	Julia P. Tu	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/21/2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 10-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 10 recites a first analog front end and a second analog front end to decode a received data packet. However, as shown in figure 2 analog front end includes RF and ADC; conversely, RF and ADC do not decode a received data packet. Therefore, claim 10 fails to comply with the enablement requirement.

Claims 11-17 are rejected as incorporating with the deficiencies of claim 10 upon which they depend.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-7 and 21 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant Admitted Prior Art (AAPA).

(1) with regard to claim 1:

As shown in figure 1, AAPA discloses a wireless receiver having a low-power listen mode, comprising:

a first receiver path for decoding a preamble to a wireless data packet (block 22 in figure 1) and a second receiver path for decoding a data packet payload (block 24 in figure 1).

(2) with regard to claim 2:

AAPA further discloses second receiver path is separate from the first receiver path (see path leads to block 22 and path leads to block 24).

(3) with regard to claim 3:

AAPA further discloses the first receiver path requires less power to operate than the second receiver path (page 6, paragraph [0016]).

(4) with regard to claim 4:

AAPA further discloses the first receiver path has a lower decoding resolution than the second receiver path (page 6, paragraph [0016]).

(5) with regard to claim 5:

AAPA further discloses the first receiver path comprises a 2-bit analog-to-digital converter (page 6, paragraph [0016]).

(6) with regard to claim 6:

AAPA further discloses the second receiver path comprises an 8-bit analog-to-digital converter (page 6, paragraph [0016]).

(7) with regard to claim 7:

AAPA further discloses the first receiver path uses barker-code detection to decode the preamble (page 6, paragraph [0016]).

(8) with regard to claim 21:

As shown in figure 1, AAPA discloses a wireless device that is adapted to receive data packets from another wireless device, comprising means for receiving encoded information via a data packet wherein a first means decodes the preamble of the data packet (block 22 in figure 1) and a second means decodes the payload of the data packet (block 24 in figure 1).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 8, 9, 18-20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Okanoue et al. (US 6,738,439).

(1) regard to claim 8:

AAPA discloses all of the subject matters in claim 1 above except for packet detection logic to identify data packets directed to the receiver; and switching logic coupled to the packet detection logic to select the first receiver path or second receiver path depending on whether the packet detection logic has identified a data packet directed to the receiver.

However, Okanoue et al. disclose packet detection logic to identify data packets directed to the receiver; and switching logic coupled to the packet detection logic to select the first receiver path or second receiver path depending on whether the packet detection logic has identified a data packet directed to the receiver (see figure 5; column 2, lines 58-67).

It is desirable to have packet detection logic to identify data packets directed to the receiver; and switching logic coupled to the packet detection logic to select the first receiver path or second receiver path depending on whether the packet detection logic has identified a data packet directed to the receiver to reduce power consumption. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the system as taught by Okanoue et al. to the system as taught by AAPA to reduce power consumption (column 3, lines 45-50).

(2) with regard to claim 9:

AAPA discloses all of the subject matters in claims 1 and 7 above except for the switching selects the first receiver path until a data packet is identified and then selects the second receiver path to decode the data packet payload.

However, Okanoue et al. further disclose the switching selects the first receiver path until a data packet is identified and then selects the second receiver path to decode the data packet payload (see switches 101 and 102 figure 5).

It is desirable to have the switching selects the first receiver path until a data packet is identified and then selects the second receiver path to decode the data packet payload to conserve power. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the switching selects the first receiver path until a data packet is identified and then selects the second receiver path to decode the data packet payload as taught by Okanoue et al. to the system as taught by AAPA to reduce power consumption (column 3, lines 48-49).

(3) with regard to claim 18:

As shown in figure 1, AAPA disclose a method for receiving a data packets in a wireless receiver, comprising:

receiving radio frequency signals with a first receiver path (see blocks 14, 18 and 22 in figure 1);

decoding signals received through the first receiver path to detect a code in a preamble of a received data packet (see block 22 in figure 1);

receiving a payload of received data packet with the second receiver path (see block 24 in figure 1).

AAPA disclose all of the above subject matters except for upon detection of the code, switching to a second receiver path.

However, Okanoue et al. disclose upon detection of the packet, switching to a second receiver path (column 2, lines 61-67).

It is desirable to include switching circuit to switch to second receiver path upon detection of the packet to demodulate the received data packet. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include switching circuit as taught by Okanoue et al. to the method as taught by AAPA to reduce power consumption (column 3, lines 48-49).

(4) with regard to claim 19:

Okanoue et al. further disclose switching back to the first receiver path when receiving of payload is completed (column 2, lines 58-67).

(5) with regard to claim 20:

AAPA further teaches first receiver path requires less power than second receiver path (page 6, paragraph [0016]).

(6) with regard to claim 22:

AAPA discloses all of the subject matters in claim 21 above except for switching means for switching between the first and second means.

However, Okanoue et al. disclose switching means for switching means for switching between the first and second means (see switch 101 and 102).

It is desirable to have switching means for switching between the first and second means to conserve power. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include switching means as taught by Okanoue et al. into the system as taught by AAPA to reduce power consumption (column 3, lines 48-49).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julia P. Tu whose telephone number is 571-270-1087. The examiner can normally be reached on 7:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

J.T.
12-21-2006

CHIEH M. FAN
SUPERVISORY PATENT EXAMINER